



AIR QUALITY FORECAST ISSUED Tuesday, July 5, 2016

This report is updated by 1:00 p.m. Sunday thru Friday and is valid for areas within and bordering Maricopa County in Arizona

FORECAST DATE NOTICES	YESTERDAY <u>Mon, 7/4/2016</u>	TODAY <u>Tue, 7/5/2016</u>	TOMORROW <u>Wed, 7/6/2016</u>	EXTENDED <u>Thu, 7/7/2016</u>
AIR POLLUTANT	Highest AQI Reading/Site (*Preliminary data only*)			
O3	47 Pinnacle Peak	54 Moderate	47 Good	67 Moderate
CO	3 West Phoenix	5 Good	5 Good	7 Good
PM-10	24 South Phoenix & Zuni Hills	23 Good	23 Good	28 Good
PM-2.5	49 South Phoenix	38 Good	28 Good	31 Good

O3 = Ozone CO = Carbon Monoxide PM-10 = Particles 10 microns & smaller PM-2.5 = Particles smaller than 2.5 microns
 "High Pollution Advisory" (HPA) means that the highest concentration of OZONE, PM-10, or PM-2.5 may exceed the federal health standard.
 "Health Watch" (HW) means that the highest concentration of OZONE, PM-10 or PM-2.5 may approach the federal health standard.

Health Statements	
Tuesday, 07/05/2016	Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.
Wednesday, 07/06/2016	No health impacts are expected.

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Synopsis and Discussion

The position of the subtropical high to our south has caused dry air from the west take over. As a result, far southeastern Arizona is the only location in the state likely to see any thunderstorm activity the next few days. Here in the Phoenix area, mostly sunny skies and near normal temperatures are expected all week. Looking at air quality, no major concerns are anticipated at this time. Winds are not forecast to be strong enough for a windblown dust event, however, some afternoon breeziness the next couple days is expected which will help ventilate the air. This should prevent any significant buildup of particulates or ozone. By Thursday, a slightly more stable atmosphere is likely to allow for somewhat higher pollutant levels but nothing too concerning. Ozone will likely return to Moderate levels but particulates are forecast to stay in the Good range through the forecast period.

Check back tomorrow for more. Until then, have a good day! –R.Nicoll

USEFUL LINKS	
INTERACTIVE MAPS	http://alert.fcd.maricopa.gov/alert/Google/v3/air.html http://www.airnow.gov/
WEB CAMERA IMAGES	http://www.phoenixvis.net/

POLLUTION MONITOR READINGS FOR Monday, July 4, 2016

O3 (OZONE)

SITE NAME	MAX 8-HR VALUE (PPB)	MAX AQI	AQI COLOR CODE
Alamo Lake	43	40	
Apache Junction	45	42	
Blue Point	46	43	
Buckeye	40	37	
Casa Grande	38	35	
Cave Creek	45	42	
Central Phoenix	41	38	
Dysart	41	38	
Falcon Field	49	45	
Fountain Hills	45	42	
Glendale	47	44	
Humboldt Mountain	49	45	
Phoenix Supersite	45	42	
Mesa	44	41	
North Phoenix	47	44	
Pinal Air Park	44	41	
Pinnacle Peak	51	47	
Queen Valley	45	42	

Rio Verde	42	39	
South Phoenix	42	39	
South Scottsdale	43	40	
Tempe	39	36	
Tonto Nat'l Mon.	49	45	
West Chandler	41	38	
West Phoenix	45	42	
Yuma	45	42	

CO (CARBON MONOXIDE)

SITE NAME	MAX 8-HR VALUE (PPM)	MAX AQI	AQI COLOR CODE
Central Phoenix	0.2	2	
Diablo	NOT AVBL	NOT AVBL	
Greenwood	NOT AVBL	NOT AVBL	
Phoenix Supersite	NOT AVBL	NOT AVBL	
West Phoenix	0.3	3	

PM-10 (PARTICLES)

SITE NAME	MAX 24-HR VALUE (µg/m3)	MAX AQI	AQI COLOR CODE
Buckeye	21.5	19	
Central Phoenix	22.6	20	
Combs School (Pinal County)	36.1	33	
Durango	11.8	10	
Dysart	25.6	23	
Glendale	16.7	15	
Greenwood	NOT AVBL	NOT AVBL	
Higley	NOT AVBL	NOT AVBL	
Maricopa (Pinal County)	36.9	33	
Phoenix Supersite	21.1	19	
Mesa	13.8	12	
North Phoenix	13.6	12	
South Phoenix	26	24	
South Scottsdale	23	21	
Tempe	14.7	13	
West Chandler	19.2	18	
West Forty Third	21.4	19	
West Phoenix	18.7	17	
Zuni Hills	26	24	

PM-2.5 (PARTICLES)

SITE NAME	MAX 24-HR VALUE (µg/m3)	MAX AQI	AQI COLOR CODE
Diablo	7.7	32	
Durango	4.5	19	
Glendale	7.6	32	
Phoenix Supersite	8.7	36	
Mesa	7.4	31	
North Phoenix	6.9	29	
South Phoenix	11.8	49	
Tempe	8.4	35	
West Phoenix	9.3	39	

DESCRIPTION OF LOCAL AIR POLLUTANTS IN DETAIL



O3 (OZONE):

Description –

This is a secondary pollutant that is formed by the reaction of other primary pollutants (precursors) such as VOCs (volatile organic compounds) and NOx (Nitrogen Oxides) in the presence of sunlight.

Sources – VOCs are emitted from motor vehicles, chemical plants, refineries, factories, and other industrial sources. NOx is emitted from motor vehicles, power plants, and other sources of combustion.

Potential health impacts – Exposure to ozone can make people more susceptible to respiratory infection, result in lung inflammation, and aggravate pre-existing respiratory diseases such as asthma. Other effects include decrease in lung function, chest pain, and cough.

Unit of measurement – Parts per billion (ppb).

Averaging interval – Highest eight-hour period within a 24-hour period (midnight to midnight)

Reduction tips – Curtail daytime driving, refuel cars and use gasoline-powered equipment as late in the day as possible.

CO (CARBON MONOXIDE):

Description – A colorless, odorless, poisonous gas formed when carbon in fuels is not burned completely.

Sources – In cities, as much as 95 percent of all CO emissions emanate from automobile exhaust. Other sources include industrial processes, non-transportation fuel combustion, and natural sources such as wildfires. Peak concentrations occur in colder winter months.

Potential health impacts – Reduces oxygen delivery to the body's organs and tissues. The health threat is most serious for those who suffer from cardiovascular disease.

Unit of measurement – Parts per million (ppm).

Averaging interval – Highest eight-hour period within a 24-hour period (midnight to midnight)

Reduction tips – Keep motor vehicle tuned properly and minimize nighttime driving.

PM-10 & PM-2.5 (PARTICLES):

Description – The term “particulate matter” (PM) includes both solid particles and liquid droplets found in air. Many manmade and natural sources emit PM directly or emit other pollutants that react in the atmosphere to form PM. Particles less than 10 micrometers in diameter tend to pose the greatest health concern because they can be inhaled into and accumulate in the respiratory system. Particles less than 2.5 micrometers in diameter are referred to as “fine” particles and are responsible for many visibility degradations such as the “Valley Brown Cloud” (see <http://www.phoenixvis.net/>). Particles with diameters between 2.5 and 10 micrometers are referred to as “coarse”.

Sources – Fine = All types of combustion (motor vehicles, power plants, wood burning, etc.) and some industrial processes. Coarse = crushing or grinding operations and dust from paved or unpaved roads.

Potential health impacts – PM can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases, such as asthma and chronic bronchitis.

Units of measurement – Micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

Averaging interval – 24 hours (midnight to midnight).

Reduction tips – Stabilize loose soils, slow down on dirt roads, carpool, and use public transit.